

MEDICINE TODAY

Current comment on medical progress, discussion of selected topics from recent books or periodic literature, by contributing members.

Industrial Medicine

Studies in Prevention of Toxic Hazards— Preventive medicine in industry has been given a definite impetus and the general interest in preventive methods has been heightened by the conclusion of a study of benzol poisoning conducted by the National Safety Council. Two significant points in this investigation are emphasized by Winslow¹: (1) that this great organization representing industry has itself conducted the research and has now entered the field of industrial poisoning, which is allied to safety and accident prevention; (2) the use of thorough research methods in a quantitative rather than qualitative study. It is interesting also to note that since this investigation was made, there have been two others; the work of the United States Public Health Service on tetraethyl lead and the spray painting study by the Pennsylvania State Bureau of Labor and the National Safety Council. Incentive to further work along preventive lines is thus given by these excellent endeavors to circumvent industrial hazards.

Winslow has called attention to two classes of uses of benzol. First, there is the group of industries where the nature of the work demands a closed pipe line system, such as (1) the distillation of coal and coal tar in making benzol, (2) the blending of motor oils, and (3) the chemical industries, which embrace oil extraction, dye and dye intermediates, paints, varnishes, stains, and paint and varnish removers. The second group is represented by processes essentially characterized by the slow or rapid evaporation of benzol, such as in (a) the rubber industry, (b) in the manufacture of artificial leather, (c) in dry cleaning, (d) in sanitary can making, (e) as a solvent or vehicle for paints, varnishes and stains.

The report contains a number of protective suggestions, among them (1) the regular and systematic inspection of closed pipe lines or containers, (2) the freeing of receptacles of benzol vapor before entering them, (3) protection for workers who enter such enclosed spaces by the use of pressure air helmets or hose masks and by work in teams, (4) the diminution to exposure by the use of enclosed processes wherever possible, (5) the use of proper exhaust systems in removing vapors. No great reliance should be placed on masks and respirators, (6) a thorough medical examination before employment, excluding those who show organic lesions of heart, lungs or kidney, any hemorrhagic tendency, and anemia or unusual blood picture,

(7) re-examinations with a systematic blood count every month during employment, (8) transfer to nonbenzol department of any employee who shows hemorrhages from mucous membranes of any organ or a decrease of white or red cells to the amount of 25 per cent or a hemoglobin below 70 per cent.

A very important development of this research study was the announcement that experimental work on animals has shown that *there were three other solvents that produced no constitutional symptoms when injected into the animals*, except for transient lessened activity, slight loss in weight and only a slight temporary reduction in the number of red and white cells. Inhalation experiments brought out these same facts even more clearly. *These three solvents are toluol, xylol and Hiflash naphtha*. The Council particularly urges manufacturers to use these relatively less harmful substances wherever manufacturing conditions make such a substitution possible.

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REFERENCE

1. Winslow, C. E. A.: Summary of the National Safety Council Study of Benzol Poisoning. Journ. Indust. Hyg., 9:61, February, 1927.

Proctology

Diverticulosis—Diverticulitis—It is not known how diverticula of the alimentary canal are formed but they occur in some part of the alimentary tract from the pharynx to the rectum. Undoubtedly some are congenital, as they may occur in early life and the pouches are then formed, by every layer constituting the normal bowell wall. Those which are a herniation of the mucous membrane through the muscular coats to a final association with the peritoneum, are acquired. These are probably a result of two factors: (1) weakness of the walls, especially at the attachment of the fat-laden appendices epiploicae or at the entrance or exit of the vessels: (2) increase of intrainestinal pressure associated with constipation or gaseous distention.

Spriggs and Marxer¹ describe from x-ray appearances: (1) A prediverticular state, when the normal segmentation of the bowel is absent, this being replaced by a ragged outline of little convex irregularities. (2) A stage of irritation following No. 1 represented by a concertina-like replacement of the smooth haustra. (3) Developed pouches or diverticula. (4) Diverticulitis or in-